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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,378	12/20/2001	Barghav R. Bellur	SRI-006A (7565/9)	3543

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EXAMINER

TRAN, PHUC H

ART UNIT PAPER NUMBER

2616

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/029,378

**Applicant(s)**

BELLUR ET AL.

**Examiner**

PHUC H. TRAN

**Art Unit**

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. NOTE: the term “ adaptively” recited in claims 1-4, and 14-15 are not positively recited claim limitations. Therefor the limitation following the term is not considered the claimed limitation. It is suggested applicant to remove the term. See MPEP 2111.04

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 8-13, 16-19 and 21-22, are rejected under 35 U.S.C. 102(b) as being anticipated by Melnik (U.S. Patent No. 6046978).

- With respect to claims 1-3 and 21, Melnik teaches a method for use by nodes to route packet traffic through a multiple-hop wireless communications network (e.g. the method for configuring a wireless network and routing data within a wireless multihop network), the method comprising;

detecting interference with packet-switched communications carried by radio frequency (RF) over the multiple-hop wireless communications network (col. 7, lines 23-24); and

determining, in response to information related to the detected interference, a route for transmitting packets through the multiple-hop wireless communications network that mitigate the effect of the interference on the packets, wherein determined route excludes the node (col. 7, lines 26-30).

- With respect to claims 4, and 16-18, Melnik also teaches the steps of approximating a geographical location of a source of the interference, and wherein the determined route excludes one or more nodes nears that location (col. 11, lines 38-42)

- With respect to claims 8,10 and 12, Melnik further comprises operating a protocol at a physical layer of a protocol stack that detects the interference (e.g. the detection of faulty link).

- With respect to claims 9, 11 and 13, Melnik teaches wherein the step of determining a route is preformed by a network layer protocol in the protocol stack in response to a notification from the physical layer protocol of the interference (see col. 6, lines 40-53).

- With respect to claim 19, Melnik discloses identifying a source of the interference to be a node in the multiple-hop wireless communications network, calculating a cost function for a plurality of routes from a sending node to a destination node that exclude the interfering node, and selecting the route with a lowest cost function (e.g. Fig. 1 and Fig. 4 discloses the cost function for reroute the path).

- With respect to claim 22, Melnik discloses a data link layer for checking for errors packets received by the node and sending a signal to the network layer when interference has been detected (col. 2, lines 15-20).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5-7 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melnik.

- For Claims 5-7 and 20, Stine discloses all the subject matter of the claimed invention with the exception of determining that signals received by a node are of unauthorized protocol / source and invalid information; and one of the protocols selected from the group consisting of 802.11, Bluetooth, hyperlan and homerf in a communications network. However, determining that signals received by a node are of unauthorized protocol / source and invalid information; and one of the protocols selected from the group consisting of 802.11, Bluetooth, hyperlan and homerf are well-known in the art. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use determining that signals received by a node are of unauthorized protocol / source and invalid information; and one of the protocols selected from the group consisting of 802.11, Bluetooth, hyperlan and homerf in the communications network of Stine.

The determining that signals received by a node are of unauthorized protocol / source and invalid information; and one of the protocols selected from the group consisting of 802.11, Bluetooth, hyperlan and homerf can be implemented/modified into the network of since it does teach accessing and routing protocol.. The motivation for using determining that signals received by a node are of unauthorized protocol / source and invalid information; and one of the protocols selected from the group consisting of 802.11, Bluetooth, hyperlan and homerf into the communications network of Stine being that it provides much higher utilizations while maintaining the guaranteed QoS and provides security for the network.

6. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melnik in view of Hwang et al. (U.S. Patent No. 6671265 B1)

- With respect to claims 14-15, Melnik discloses all the aspect of the claimed invention as set forth above but fails to teach adjusting an antenna pattern of a node in the wireless communications network in response to detecting the interference. Hwang teaches adjusting the antenna in response to detecting the interference (col. 2, lines 50-60). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the technique of adjusting the antenna for reducing the interference in the communications network.

#### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chuprun et al. (U.S. Patent No. 6115580) discloses communications network having adaptive network link optimization using wireless terrain awareness and method for use therein.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H. TRAN whose telephone number is (571) 272-3172. The examiner can normally be reached on M-F (8-4:30).

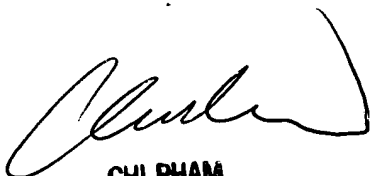
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHI PHAM can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Phuc Tran  
Assistant Examiner  
Art Unit 2616

P.t  
5/30/06

  
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